Math 213 Spring 2020 Name: _____

Quiz 4

1. Determine whether the series converges, and if it converges, find the sum. Justify your answer completely.

   (a) $\displaystyle\sum_{n=1}^{\infty}\left(-\frac{1}{5}\right)^{n-1}$

   (b) $\displaystyle\sum_{n=1}^{\infty}\left(-\frac{4}{5}\right)^{n}$

   (c) $\displaystyle\sum_{n=2}^{\infty}\left(\frac{4}{5}\right)^{n+3}$ [Hint: write out the first three terms of the series, then find a and r as in the Definition of geometric series on p. 459 in Section 5.2.]